This listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1 - 52 (canceled)

53 (new) A method of making a trisomic avian comprising:

isolating a mitotic chromosome;

injecting the chromosome into an early stage embryo; and

maintaining the embryo under conditions suitable for the embryo to develop and hatch as a chick.

54 (new) The method of claim 53 comprising transferring the injected embryo to a recipient female avian.

55 (new) The method of claim 53 wherein the early stage embryo is a stage I embryo.

56 (new) The method of claim 53 wherein the transgenic avian is a transgenic chicken.

57 (new) The method of claim 53 wherein the chromosome is an artificial chromosome.

58 (new) The method of claim 53 wherein the chromosome comprises a heterologous recombination site.

59 (new) The method of claim 58 wherein a serine recombinase mediates recombination at the heterologous recombination site.

60 (new) The method of claim 58 wherein the heterologous recombination site is attP or attB.

61 (new) The method of claim 53 wherein the chromosome comprises a heterologous coding sequence.

62 (new) The method of claim 61 wherein the heterologous coding sequence comprises a pharmaceutical protein coding sequence.

63 (new) The method of claim 61 wherein the heterologous coding sequence encodes an immunoglobulin polypeptide.

64 (new) The method of claim 61 wherein the heterologous coding sequence encodes a cytokine.

65 (new) The method of claim 53 wherein the chromosome comprises a promoter.

66 (new) The method of claim 53 wherein the chromosome comprises an oviduct promoter.

67 (new) The method of claim 53 wherein the chromosome comprises an ovomucoid promoter.

68 (new) The method of claim 53 wherein the chromosome comprises an IRES.

69 (new) A method of making a trisomic avian comprising:

isolating a mitotic chromosome which comprises a heterologous recombination site;

injecting the chromosome into an early stage embryo; and

maintaining the embryo under conditions suitable for the embryo to develop and hatch as a chick.

70 (new) The method of claim 69 comprising transferring the injected embryo to a recipient female avian.

71 (new) The method of claim 69 wherein the early stage embryo is a stage I embryo.

72 (new) The method of claim 69 wherein the transgenic avian is a transgenic chicken.

73 (new) The method of claim 69 wherein the chromosome is an artificial chromosome.

74 (new) The method of claim 69 wherein a serine recombinase mediates recombination at the heterologous recombination site.

75 (new) The method of claim 69 wherein the heterologous recombination site is attP or attB.

76 (new) The method of claim 69 wherein the chromosome comprises a heterologous coding sequence.

77 (new) The method of claim 76 wherein the heterologous coding sequence comprises a pharmaceutical protein coding sequence.

78 (new) The method of claim 69 wherein the chromosome comprises a promoter.

79 (new) The method of claim 69 wherein the chromosome comprises an ovomucoid

promoter.

80 (new) The method of claim 69 wherein the chromosome comprises an IRES.

81 (new) A method of making a protein comprising:

isolating a mitotic chromosome which contains a heterologous nucleotide sequence comprising a promoter operably linked to a coding sequence;

injecting the chromosome into an early stage embryo;

maintaining the embryo under conditions suitable for the embryo to develop and hatch as a chick;

maintaining the chick under conditions suitable for the chick to develop into a mature avian;

obtaining transgenic offspring from the mature avian; and

recovering a heterologous protein from the transgenic offspring.

82 (new) The method of claim 81 comprising transferring the injected embryo to a recipient female avian.

83 (new) The method of claim 81 wherein the early stage embryo is a stage I embryo.

84 (new) The method of claim 81 wherein the avian is a chicken.

85 (new) The method of claim 81 wherein the chromosome is an artificial chromosome.

86 (new) The method of claim 81 wherein the chromosome comprises a heterologous recombination site.

87 (new) The method of claim 86 wherein the protein is a pharmaceutical protein.

88 (new) The method of claim 81 wherein the chromosome comprises an oviduct promoter.

89 (new) The method of claim 81 wherein the chromosome comprises an ovomucoid promoter.

90 (new) The method of claim 81 wherein the heterologous protein is present in an egg.

91 (new) The method of claim 81 wherein the heterologous protein is present in egg white.

92 (new) A trisomic avian comprising a cell which contains an artificial chromosome.

93 (new) The trisomic avian of claim 92 wherein the avian is a chicken.

94 (new) The trisomic avian of claim 92 wherein the artificial chromosome comprises a heterologous recombination site.

95 (new) The trisomic avian of claim 94 wherein a serine recombinase mediates recombination at the heterologous recombination site.

96 (new) The trisomic avian of claim 94 wherein the heterologous recombination site is an attP site or an attB site.

97 (new) The trisomic avian of claim 92 wherein the artificial chromosome comprises a heterologous coding sequence.

98 (new) The trisomic avian of claim 97 wherein the heterologous coding sequence comprises a pharmaceutical protein coding sequence.

99 (new) The trisomic avian of claim 92 wherein the artificial chromosome comprises a promoter.

100 (new) The trisomic avian of claim 92 wherein the artificial chromosome comprises an ovomucoid promoter.

101 (new) The trisomic avian of claim 92 wherein the artificial chromosome comprises an IRES.